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Query by Using Virtual Machines

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ABSTRACT

Will speak in this paper about the possibility of the use of two VM in the cloud have every one of them have the same the other characteristics of the processor and the memory and everything speed , as well as be the speed of the net in both VM fixed similar but each VM has a different server VM first contain Google maps server and VM second contains Binq map server and so when you start to search for the name of a street or a city or state information will be displayed on both the VM first and second in order to see the difference between the two in terms of speed and the time it takes to show the result.

Key words: *Cloud Computing, Query, Bing map, Google map.*

1. INTRODUCTION

In recent years, Infrastructure as a Service (IaaS) cloud computing has emerged as a viable alternative to the acquisition and management of physical resources. With IaaS, users can lease storage and computation time from large datacenters. Leasing of computation time is accomplished by allowing users to deploy virtual machines (VMs) on the datacenter's resources. Since the user has complete control over the configuration of the VMs using on-demand deployments, IaaS leasing is equivalent to purchasing dedicated hardware but without the long-term commitment and cost. The on-demand nature of IaaS is critical to making such leases attractive, since it enables users to expand or shrink their resources according to their computational needs, by using external resources to complement their local resource base[5]. This emerging model leads to new challenges relating to the design and development of IaaS systems. One of the commonly occurring patterns in the operation of IaaS is the need to deploy a large number of VMs on many nodes of a datacenter at the same time, starting from a set of VM in ages previously stored in a persistent fashion. For example, this pattern occurs when the user wants to deploy a virtual cluster that executes a distributed application or a set of environments to support a workflow. We refer to this pattern as multi deployment. Such a large deployment of many VMs at once can take along time. This problem is particularly acute for VM images used in scientific computing where image sizes are large (from a few gigabytes up to more than 10 GB)[6]. A typical deployment consists of hundreds or even thousands of such images. Conventional deployment techniques broadcast the images to the nodes before starting the VM instances, a process that can take tens of minutes to hours, not counting the time to boot the operating system itself. This can make the response time of the IaaS installation much longer than acceptable and erase the on-demand benefits of cloud computing. Once the VM instances are running, a similar challenge applies to snapshot ting the deployment: many VM images that were locally modified need to be concurrently transferred to stable storage with the purpose of capturing the VM state for later use (e.g., for check pointing or off-line migration to another cluster or cloud)[1]. We refer to this pattern as multi snapshot ting. Conventional snapshot ting techniques rely on custom VM image file formats to store only incremental differences in a new file that depends on the original VM image as the backing file as figure1.

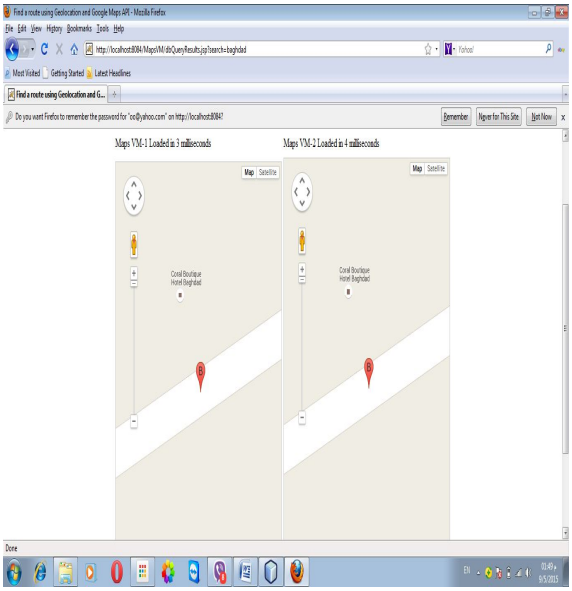

Figure1. Using 2 VM to get the result.

2. CLOUD COMPUTING

Although there are several variations on the definition of cloud computing, some basic tenets characterize this emerging environment. Cloud computing furnishes technological capabilities commonly maintained off premises that are delivered on demand as a service via standard Internet protocols[2]. For public cloud services, since a third party provides access to the applications and infrastructure, consumers of public cloud services do not own the assets in this cloud model but instead pay for them on a per-use basis. In essence, they are renting the physical infrastructure and applications within a shared architecture. Cloud offerings can range from data storage to end-user web applications to other focused computing services. One critical difference between traditional and cloud computing is the scalable and elastic nature cloud computing provides. Instead of a static system architecture, cloud computing supports the ability to dynamically scale up and quickly scale down, offering cloud consumers high reliability, quick response times, and the flexibility to handle unpredictable traffic fluctuations and sporadic demand. Cloud computing also supports multitenancy, providing systems configured in such a way that they can be pooled and shared by many organizations or individuals. Virtualization technology allows cloud vendors to convert one server into many virtual machines, thereby eliminating client-server computing with single-purpose systems[3]. This maximizes hardware capacity and allows customers to leverage economies of scale as figure 2.

Figure2. Cloud Computing

3. BING MAP

BING Maps is a worldwide collection of current data types that support multiple web delivery formats[4]. Bing Maps is delivered as a web service and can be provided to Spatial on Demand customers as native Bing Map cached services, as an OGC- compliant Web Mapping Service and delivered with the Bing Maps SDK for use by individual users of GIS and other mapping applications, in addition to supporting internal web applications as figure 3.

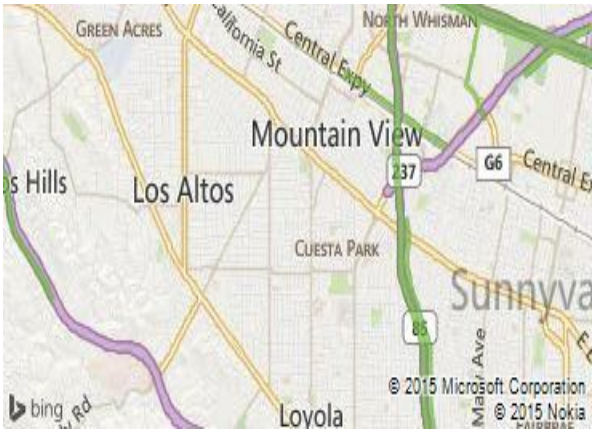

Figure3. Bing Map

4. GOOGLE MAPS

Google Maps is a desktop and mobile web mapping service application and technology provided by Google, offering satellite imagery, street maps, and Street View perspectives, as well as functions such as a route planner for traveling by foot, car, bicycle (beta test), or with public transportation. Also supported are maps embedded on third-party websites via the Google Maps API, and a locator for urban businesses and other organizations in numerous countries around the world. Google Maps satellite images are not updated in real time; however, Google adds data to their Primary Database on a regular basis. Google Earth support states that most of the images are no more than 3 years old[4].

The opt-in redesigned version of the desktop application has been available since 2013, alongside the "classic" (pre-2013) version. The redesigned version was met by user criticism regarding slowness, hiding some common functions, removing a scale bar, and lack of other features that include My Places and sharable customized links to parameterize split Street View and Map views. It is possible to switch back to the old version. Google Maps uses a close variant of the Mercator projection, and therefore cannot accurately show areas around the poles. A related product is Google Earth, a stand-alone program which offers more globe-viewing features, including showing polar areas. Google Maps for mobile is the world's most popular app for smartphones, with over 54% of global smartphone owners using it at least once during the month of August 2013 as figure 4.

Figure4. Google Map

5. METHODOLOGY OF WORK WITH FLOW CHART (DIAGRAM)

Systematic research on the application of practical program we first registration process and then we process access to the search page and then write the name of any street or city or state and what are the results that will show how to measure the time difference between the two servers used in both VM first and second to give us different results of which define good server that takes less time to show the results will show that using a flowchart as figure5, table no 1.

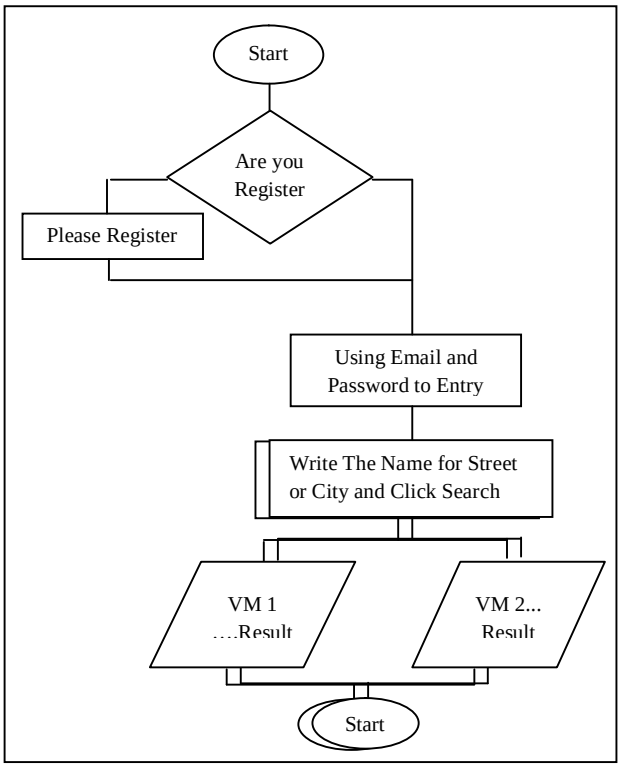

Figure5. Flow chart

6. RESULT IN TABLE

Query Result on Computer Cor I3 CPU 2.20 GH RAM 8 GB Operating System 64 - Bit			
NO	**Location**	**Response Time in Google**	**Response Time in Bing**
1	**Acharya Nagarjuna University**	19 milliseconds	155 milliseconds
2	**Guntur**	31 milliseconds	141 milliseconds
3	**Baghdad**	38 milliseconds	177 milliseconds
4	**Karbala**	50 milliseconds	220 milliseconds

Table no 1.Result

7. CONCLUSION

As cloud computing becomes increasingly popular, efficient management of VM images, such as image propagation to compute nodes and image sharpshooting for check pointing or migration is critical. The performance of these operations directly affects the usability of the benefits offered by cloud computing systems. This paper introduced several techniques that integrate with cloud middleware to efficiently handle two VM The first contains the server google map and the second contains the server bing map to show results and measuring the time difference between both the two servants.

8. REFERENCES

1. http://www.co.rice.mn.us/sites/default/files/pdfs/maps/documents/WIGIS.pdf.
2. https://www.eeducation.psu.edu/cloudGIS/node/20.
3. http://www.esri.com/library/ebooks/gis-in-the-cloud.pdf.
4. http://www.spatialenergy.com/documents/Bing MapsFAQ_2011.pdf.
5. B. Claudel, G. Huard, and O. Richard. Taktuk, adaptive deployment of remote executions. In HPDC ’09: Proceedings of the 18th ACM International Symposium on High Performance Distributed Computing, pages 91–100, New York, 2009. ACM.
6. “Amazon elastic compute cloud (Amazon EC2),” http://aws. amazon.com/ec2/, 2012.